



# NATIONAL WEATHER SERVICE

## DECISION SUPPORT NEWSLETTER, SPRING 2011

SPRINGFIELD, MO

[www.weather.gov/springfield](http://www.weather.gov/springfield)

*The National Weather Service (NWS) provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy.*

### INSIDE THIS ISSUE :

Severe Weather Products	1
Enhanced HWO	2
Detailed Look at Severe Weather Watches	3
Watch, Warning, Advisory—The Breakdown	4
Communication Tools	4
Mobile Decision Support—iNWS	5
About Us	5

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## SEVERE WEATHER PRODUCTS

The Springfield, Missouri National Weather Service Forecast Office issues warnings for severe thunderstorms, tornadoes and flooding for 34 counties in southwestern Missouri and 3 counties in extreme southeastern Kansas. Severe weather warnings for severe thunderstorms, tornadoes, and flash flooding are issued for conditions meeting certain criteria, which are explained below.

Severe weather products are issued following a “Ready”, “Set”, “Go” concept as the event approaches and confidence of occurrence increases.

### Severe Thunderstorm Warnings

Issued for thunderstorms producing

- Damaging winds of 58 mph (50 kts) or greater.

And / or

- Large hail of 1” in diameter or larger .

### Tornado Warnings

Issued when a tornado has been detected NWS Doppler radar or reported by storm spotters.



### Flash Flood Warnings

Issued for rapidly rising water that poses a threat to life and property.

This includes flooding of small streams, low water crossings and urban areas.



Ready

Daily Hazardous Weather Outlook issued to highlight potential weather hazards through 7 days.

<http://www.crh.noaa.gov/sgf/?n=hwo>

Be ready for potential weather hazards.

Set

The Storm Prediction Center issues Severe Thunderstorm and Tornado Watches 2 to 6 hours in advance of severe storm development.

<http://www.spc.noaa.gov/>

Severe weather is possible. Monitor and be prepared to take action.

Go

Warnings are issued when severe weather is detected by radar or reported by spotters.

<http://www.crh.noaa.gov/hazards/sgf>

Severe weather occurring or imminent. Take immediate action to protect life and property from severe storms.








## ENHANCED HAZARDOUS WEATHER OUTLOOK

The Enhanced Hazardous Weather Outlook (EHWO) is a decision support service that supports preparedness and response efforts prior to and during hazardous weather. The EHWO provides decision makers with convenient access to potential weather hazard information by graphically depicting the risk of weather hazards through day seven.















The EHWO packages five-level, color coded alert buttons and text within a comprehensive web page suite.

The EHWO is updated at least twice per day, by 6 AM and 1 PM, and more often if conditions warrant.

<http://www.crh.noaa.gov/sgf/?n=hwo>

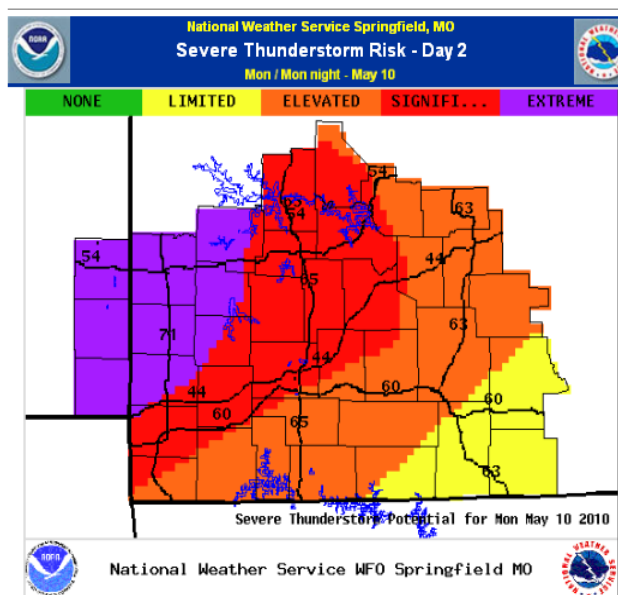
Risk Level - Legend				
None	Limited	Elevated	Significant	Extreme
				

Note: To display hazard maps, click on any of the risk level indicators below.

Tonight			
Risk	Level	Risk	Level
Tornado		Fog	
Hail		Non - Thunderstorm Winds	
Thunderstorm Wind Gusts		Extreme Heat	
Flooding		Snow and Sleet	
Lightning		Freezing Rain	
Spotter Outlook		Frost and Freeze	
Fire Weather		Extreme Cold	

### The Enhanced Hazardous Weather Outlook (EHWO) page provides:

- Weather Hazard Graphics depicting the type, severity and coverage of weather hazards
- Hazardous Weather Buttons conveying hazardous weather risk levels for a given day
- Hazardous Weather Outlook text
- Spotter Outlook Graphic that portrays the anticipated need for spotter activation
- Links to briefing pages that provide packaged information for a given weather hazard
- Links to video briefings that elaborate on a given hazardous weather event
- Links to GOES satellite and NEXRAD radar
- Risk Legend section that defines the risk levels
- Safety and Education information for a given weather hazard





## WATCH OUT!

### A DETAILED LOOK AT SEVERE WEATHER WATCHES

Severe Thunderstorm and Tornado watches are intended to give decision makers and the general public an advanced alert *that atmospheric conditions are becoming increasingly favorable for the development of severe weather within the next several hours*. Watches are generally issued for widespread, organized severe weather threats, with the goal of issuing the watch one to two hours before the first report of severe weather. Watches normally cover a large geographic area, and are in effect for 4 to 8 hours in the future.

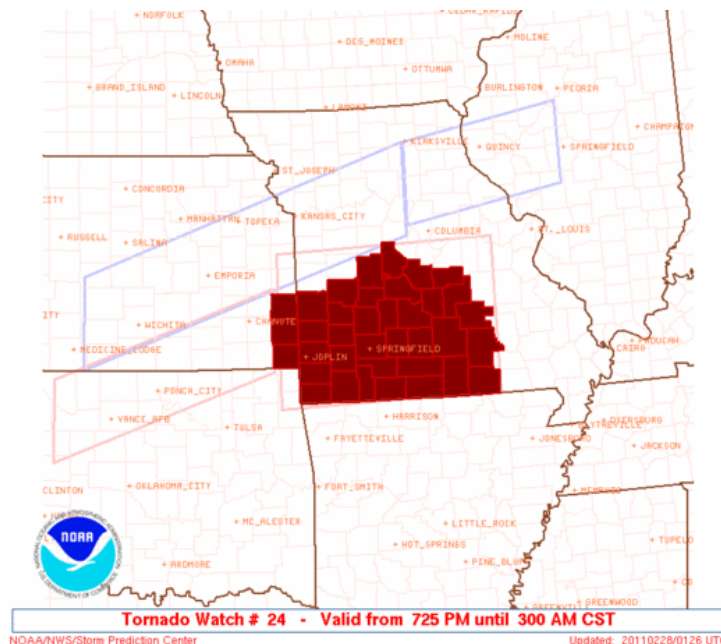
#### Initial Issuance

All Severe Weather Watches originate from the Storm Prediction Center (SPC), located in the National Weather Center in Norman, OK. There, a team of expert severe weather forecasters monitor surface observations, satellite, radar, and short term computer models for the potential for severe weather. Once it appears that severe weather will be likely within the next several hours, SPC will hold a conference call to coordinate either a Severe

Thunderstorm or Tornado Watch with the affected local NWS Forecast Offices. As soon as SPC and the local offices agree on the time and area of the watch, NOAA Weather Radio is activated for those areas within the Watch. The Watch information is also posted to the NWS website, and on NWSChat. Additionally, Watch information will be included in a new Zone Forecast issuance, and likely included in an updated Hazardous Weather Outlook.

#### Recommended Preparations

Once a Severe Thunderstorm or Tornado Watch has been issued, partners are encouraged to make preparations for the potential for severe weather to occur within the next few hours. This may include notifying spotters, activating severe weather plans and procedures, and readying community weather shelters. Remember, a Severe Weather Watch means that atmospheric conditions are becoming conducive for severe weather to occur within the next few hours; once a Watch is is-



A TORNADO WATCH ISSUED FOR ALL OF THE  
SPRINGFIELD, MO NWS FORECAST AREA

sued, that is the time to prepare!

It is important to note that not all severe weather is preceded by a Watch; more isolated severe weather events may occur without a Watch in place. In addition, partners should recognize that tornadoes are still possible during severe weather events with a Severe Thunderstorm Watch in effect.

#### During and After the Storm

While the initial Severe Weather Watch is issued by the Storm Prediction Center, any further cancellations or extensions in time are the responsibility of the local NWS Forecast Office. If a severe weather threat appears to be increasing across an area not in the initial Watch, the local Forecast Office may choose to extend the Watch into those areas. In addition, if the severe

weather threat is likely to persist beyond the initial expiration time agreed to with SPC, the Watch can be extended in time for part or all of the Watch area.

Once the severe weather threat has ended across the area, the local Forecast Office will make every effort to cancel a Watch in a timely manner. Normally, the local office will cancel or "trim back" the watch several counties at a time.

Notification of changes to a watch will occur through the same channels as the initial Watch notification. Partners are encouraged to check back often to [www.weather.gov/springfield](http://www.weather.gov/springfield) or [www.spc.noaa.gov](http://www.spc.noaa.gov), NOAA Weather Radio, and NWSChat during a potential severe weather situation in order to get the latest Severe Thunderstorm or Tornado Watch information.



THE NATIONAL WEATHER CENTER - HOME OF  
THE STORM PREDICTION CENTER  
NORMAN, OK



## WATCH, WARNING, ADVISORY—THE BREAKDOWN

Most weather event-driven products issued by the National Weather Service fall into three categories—a Watch, a Warning, or an Advisory. Here is a breakdown of exactly what those terms mean.

### The Watch

A Watch means that a significant weather hazard is not imminent or occurring, but that confidence has increased that hazardous weather may occur in the future. Watches can be in effect anywhere from several hours to several days before a weather event. For instance, a Severe Thunderstorm or Tornado Watch is issued a few hours before an expected severe weather event. In that case, the Watch means that atmospheric conditions are becoming favorable for the development of severe thunderstorms

and/or tornadoes. For winter weather situations, a Winter Storm Watch may be issued anywhere from 24 to 48 hours before a possible winter storm.

While hazardous winter weather is not imminent, forecast confidence is increasing that a Winter Storm may occur within the next few days.

In general, a Watch implies that it is time for decision makers to begin preparing for a hazardous weather event. This may include readying equipment or staff, or reviewing hazardous weather safety plans.

### The Warning

A Warning means that a hazardous weather event is either occurring or imminent, and immediate action should be taken to protect life and property. Warnings include (though are not limited to)

Severe Thunderstorm and Tornado Warnings, Winter Storm Warnings, and Flood Warnings. For flooding, Warnings may be issued for three distinct situations. A Flash Flood Warning is issued when a rapid rise of water and subsequent flooding is expected on area creeks, streams, and over low water crossings. An Areal Flood Warning may be issued when flooding of creeks, streams, low water crossings, and low lying areas is imminent or occurring, but the rise of water is not rapid. Finally, a River Flood Warning is issued for specific forecast points on area rivers, where the river is above or expected to reach flood stage.

### The Advisory

Much like a Warning, an Advisory means that the associated

weather hazard is imminent or occurring. However, advisories are issued for weather hazards that do not pose an immediate threat to life and property, as long as proper precautions and actions are taken. For instance, a Dense Fog Advisory implies that motorists should use additional caution when driving, and if those actions are taken, then the dense fog will likely not be a threat to life and property. For flooding, a Flood Advisory is issued if flooding is imminent or occurring in an area, but the nature of the flooding is localized and the rise in water is not rapid.

Again, an Advisory is issued for situations where a weather hazard is imminent or occurring, but will not pose a direct threat to life and/or property if proper precautions are taken.

## COMMUNICATION TOOLS

### NATIONAL WEATHER SERVICE CHAT

Partners in the emergency management, law enforcement, and media communities are encouraged to actively participate in NWSChat. NWSChat is an application that allows real-time communication between forecasters and important partners. Along with the opportunity to ask forecasters for additional information, clarification, or to pass on storm reports, each chat room is automatically populated with the latest watches, warnings, and advisories, and updates to important products like the Hazardous Weather Outlook and Area Forecast Discussion. This feature provides users with an

excellent monitoring and situational awareness tool during potentially hazardous weather events.

NWSChat is currently open to those in the media, emergency management, and law enforcement communities, as well as other local, state, and Federal government partners. NWSChat can be utilized on Windows, Linux, and Macintosh operating systems. Several applications for mobile devices have also been recently developed.

Additional information on NWSChat is available at <https://nwschat.weather.gov/>

### STORM REPORTS VIA TWITTER

Once again this year, reports of significant observed weather like small hail, winds, rainfall, or even a late season snow can be sent to Twitter using the hash tag “#wxreport”. While all partners are encouraged to report life threatening weather conditions like tornadoes, severe winds, or wind damage using phone, Twitter can provide an excellent way to pass on general weather information to the NWS and other followers. For more information on submitting storm reports via Twitter, check out the link at the bottom of our webpage,

[www.weather.gov/springfield](http://www.weather.gov/springfield), or visit the following webpage:

<http://www.weather.gov/stormreports>







## MOBILE DECISION SUPPORT SERVICES—INTERACTIVE NWS



Interactive NWS, or iNWS, serves as one of the best tools for mobile decision support services. iNWS is intended for those in the emergency management community, community leaders, and those in government services, and allows users to set up customized text and email alerts of important NWS products to be sent to one or more cell phones or email addresses.

Users are able to define alerts for single or multiple counties, or to define a custom alert area covering portions of one or several counties. When an NWS Watch, Warning or Advisory that the user has chosen to be alerted for falls within the alert area, a short message is pushed to the user's mobile device or email account.

Each initial alert message in-

cludes information on the type of NWS product that has been issued and the times that the product is valid for. In addition, each alert includes a link that can be accessed through a web browser that includes the complete alert text, as well as the radar image at the time the product was issued.

While the time it takes to receive an alert is ultimately dependent on a user's cell phone company or email provider, alerts are oftentimes received about as fast as over NOAA Weather Radio—on the order of seconds. For an emergency manager out at a county fair, or school superintendent walking the halls of the high school, having real-time access to the latest watches and warnings from the NWS can be invaluable, and in some cases,

life-saving.

iNWS is open to those in emergency management, government services, and those who serve in community leadership positions. iNWS text alerts are available on most devices capable of receiving text messages, with full functionality available on those devices that support mobile web browsing.

While iNWS is free to use, additional fees for text messages and mobile internet access may be assessed by cell phone service providers.

Anyone interested in iNWS is encouraged to visit

[www.inws.wrh.noaa.gov](http://www.inws.wrh.noaa.gov)

for more information.

## ABOUT THE NATIONAL WEATHER SERVICE

### SPRINGFIELD, MO FORECAST OFFICE

The mission of the National Weather Service, part of the National Oceanic and Atmospheric Administration and Department of Commerce, is to issue weather, water, and climate forecasts and warnings for the protection of life and property and enhancement of the National economy. This mission is carried out by the dedicated men and women at 122 Weather Forecast Offices around the United States.

The Springfield National Weather Service Forecast Office has 24 hours a day, 7 days a week forecast and severe weather warning responsibility for 37 counties in southern and

southwestern Missouri and extreme eastern Kansas. In addition, specialized forecasts are issued for aviation interests at the Springfield, Branson, and Joplin airports. The office is also one of 92 stations with responsibility for twice a day weather balloon observations.

More information on the Springfield, MO Forecast Office, as well as local forecast information, can be found on our website, [www.weather.gov/springfield](http://www.weather.gov/springfield).

Information on other Forecast Offices around the country, as well as forecasts across the United States, can be found at [www.weather.gov](http://www.weather.gov).

### ABOUT THIS PUBLICATION

This publication has been designed to enhance readiness and decision response by the emergency management community, media, DOT, and other critical partners. Decision Support Newsletters will generally be published around 4 times a year, usually at the start of a new season, and oftentimes the start of a new set of weather hazards across eastern Kansas and the Missouri Ozarks.

Featured topics each season will include information on NWS watch, warning, and advisory products, as well as decision support tools such as GIS re-

sources, web-based forecast services, and communication tools.

If you have a suggestion about information that you'd like to see in this publication, or feedback on National Weather Service products and services, please don't hesitate to contact us.

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Springfield Weather Forecast Office**

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